

## ABSTRACT OF THE DISCLOSURE

An apparatus and method of operating the same for detecting obstacles includes an antenna having of a single metallic element, a microprocessor, a computer program, a transceiver for transmitting an oscillating digital electronic signal to the antenna and generating a feedback signal of the electronic signal in the antenna, the transmitted electronic signal generating an electromagnetic field around the antenna, the voltage and frequency of the oscillating digital electronic signal being controlled by the microprocessor according to the computer program, obstacles being detected by the transceiver monitoring change in the electronic signal passing through the antenna, and a signaling means outputs a signal upon detection by the transceiver of said change in the electronic signal passing through the antenna.

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